

High Rates of *Yersinia enterocolitica* Infection Among Black Infants in the Metropolitan Atlanta Area Compared to Other FoodNet Sites 1996-1998

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Background: In much of the industrialized world, *Yersinia enterocolitica* is an important cause of febrile gastroenteritis. In the United States, the epidemiology of *Y. enterocolitica* has not been well described. We therefore conducted enhanced laboratory-based surveillance for *Y. enterocolitica* infections within the Emerging Infections Program's Foodborne Diseases Active Surveillance Network (FoodNet).

Methods: In 1996, FoodNet began surveillance for culture-confirmed cases of *Y. enterocolitica* in Minnesota, Oregon and selected counties of California (San Francisco, Alameda), Connecticut (Hartford and New Haven) and Georgia (metropolitan Atlanta area). Clinical laboratories were contacted at least monthly to ascertain cases. In 1997, we also conducted a survey of laboratory practices of all clinical laboratories which process stool specimens from patients in the FoodNet sites.

Results: From 1996 through 1998, *Y. enterocolitica* was isolated from 414 patients; 209 (50%) were males. Of the 332 patients with known race/ethnicity, 155 (47%) were black, 116 (35%) were white, 42 (13%) were Asians, 17 (5%) were Hispanic, and 2 (0.6%) were Native American. The median age of patients was 2.7 years (range <1 to 91. years); 160 (39%) patients were <1 year of age. Patients from Georgia had lower median age (<1 year) than patients from other sites. The annual incidence (per 100,000 population) of *Y. enterocolitica* infections was 1.0 in 1996, 0.9 in 1997, and 1.0 in 1998. The average overall annual incidence was highest in Georgia (1.9) compared to other sites (range 0.5 in Oregon to 1.3 in California). The average annual incidence was 3.5 per 100,000 in blacks, 1.7 in Asians, 0.6 in Hispanics, and 0.3 in whites. The average annual incidence was 27.3 in infants <1 year of age, 2.2 in children 1 to <6 years of age, and 0.4 in persons ≥6 years of age. The highest average annual incidence among race, ethnicity and age groups was among black infants with 152.2 cases per 100,000 population: by site, black infant rate ranged from 24.9 in Minnesota to 217.7 in Georgia. Overall, 50% (206) of cases occurred between November and February 75% of cases among blacks and 35% of cases among all others. Directors of clinical laboratories reported routinely testing 25% of all stool specimens for *Y. enterocolitica* in 1997 (range 14% in Oregon to 38% in California). Regional variations in culture practices did not explain observed rates.

Conclusions: The incidence of *Yersinia enterocolitica* infections was highest in the metropolitan Atlanta area, particularly among black infants. Variation in incidence was apparently not due to a variation in laboratory practices. Yersinosis should be suspected in black children with gastroenteritis, particularly between November to February. Isolation of *Y. enterocolitica* should be part of routine testing of stool specimens by clinical laboratories serving populations at high risk, especially during the winter months.

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